

# Reed-Muller Workshop

May 24 – 25, 2017

Novi Sad, Serbia

## PROVISIONAL PROGRAM

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### Wednesday, May 24

19:30 – 20:30 **Invited Address** – Dr. Elena Dubrova

### Thursday, May 25

08:50 – 09:00 **Opening Remarks** – R. Stanković

09:00 – 10:15 **Session 1**

*Compact XOR-Bi-Decomposition for Generalized Lattices of Boolean Functions*, Bernd Steinbach and Christian Posthoff

*Enumeration and Coding methods for a class of Permutations*, Costas Karanikas and Nikolaos Atreas

*Cryptographic Applications of the Reed-Muller Spectrum*, Mitchell Thornton and Michael Miller

10:15 – 10:45 **Refreshment Break**

10:45 – 12:00 **Session 2**

*Boolean Bent Functions Classification in the Spectral Reed-Muller Domain*, Miloš Radmanović and Radomir Stanković

*Boolean function classification with  $\delta$ -swaps*, Mathias Soeken, Ina Kodrasi and Giovanni De Micheli

*A Correction of Walsh Spectral Classification of Boolean functions for  $n \leq 5$* , Milena Stanković, Claudio Moraga and Radomir Stanković

12:00 – 13:30 **Lunch**

13:30 – 14:45 **Session 3**

*Fundamental Symmetric Boolean Functions and Reed-Muller Spectra*, Claudio Moraga

*BDD and FDD Size Optimization by Genetic Algorithm*, Suzana Stojkovic, Darko Velickovic and Claudio Moraga

*Cycle structures of the reversible hidden weighted bit function*, Krzysztof Podlaski

14:45 – 15:15 **Refreshment Break**

15:15 – 16:05 **Session 4**

*Optimal MCT Circuits of Reversible Adder-Subtractors and Quantum Gate Realization*, Md Belayet Ali, Takashi Hirayama, Katsuhisa Yamanaka and Yasuaki Nishitani

*Analytic Sifting Algorithm*, Martin Lukac, Pawel Kerntopf and Michitaka Kameyama

16:05 – 16:15 **Break**

16:15 – 17:00 **Plenary Session** – Reed-Muller –Past, Present and Future

The session will begin with a brief overview of the contributions described in the following survey papers included in the workshop record:

*Early work in Switching Theory and Logic Design of Gavrilov School in former Soviet Union*, Anatoly Shalyto, Radomir Stanković, Jaakko Astola and Alexander Strukov

*A Selected Bibliography on Reed-Muller Representations and Related Topics*, Radomir Stanković and Dragan Janković